**September 25, 2024**

**FINANCIAL ASSISTANCE CENTER**
**FINDING OF NO SIGNIFICANT IMPACT/ENVIRONMENTAL ASSESSMENT**

TO: ALL INTERESTED GOVERNMENT AGENCIES AND PUBLIC GROUPS

In accordance with procedures for environmental review found at 10 CSR 60-13.030, a review has been performed on the proposed action below:

Project Identification: Drinking Water System Distribution Improvements

Applicant: Tri-County Water Authority Project No: DW291181-05

City: Independence County: Jackson State: Missouri

Estimated Project Amount: $15,000,000

Potential State Revolving Fund (SRF) Amount: $15,000,000

COMMUNITY DESCRIPTION:

Location:
The Tri-County Water Authority (TCWA) project is located in northwestern Missouri. The project is broken into two locations. The first location is 9 miles east of Liberty between the Missouri River and Little Blue River. The second project is located on the southeast side of Lake Jacomo.

Population, Present and Projected, and Design Year:
The Tri-County Water Authority serves wholesale drinking water to15 primary customers. 10 of those customers use TCWA as their sole source of water. The other 5 customers use TCWA to satisfy a portion of their populations demands. TCWA establishes maximum demand contracts with its customers. As of 2022, the total maximum demands established with TWCA's customers is 12.36 million gallons per day (mgd). Twenty-year growth forecasts approximate maximum daily water demand of 21.94 mgd.

Current Methods of Supply, Storage, Water Treatment, and Distribution
The TCWA water system includes a lime-softening water treatment plant that draws its raw water from the well field located next to the Missouri River in northern Jackson County. The water treatment plant consists of 6 aerators, 5 contact basins, 4 re-carbonation basins, 12 filter cells, and 7 high service pumps. The treatment plant has multiple trains for redundancy and a firm capacity of 20.5 mgd. The system has 6 ground storage tanks and 2 elevated water storage tanks with a total storage capacity of 13.37 million gallons. The TWCA has 6 booster pump stations and 18 connections to other systems.

## PROJECT DESCRIPTION:

Wellfield improvements: The project consist of the addition of 3 new alluvial wells to the Missouri River flood plain collection site. The 3 new wells will be tied into the raw water collection piping to the water treatment plant.

Water Storage Improvements: Construction of a new 2-million-gallon storage tank at the Colburn road pump station site. This new tank will operate in parallel with the existing 1-million-gallon tank at the booster pump station.

Purpose and Need: The purpose of the project is to make the necessary improvements to enable to Tri-County Water Authority to operate a water system that meets drinking water quality standards and provide reliable water service to its customers. The improvements are proposed to increase system pressures under static conditions and to provide greater reliability in the system. The well field expansion will provide the source water capacity to meet growing demand over the next 20 years. The new water storage tank will increase storage capacity and improve redundancy.

Design Factors: Work will be performed in right-of-ways, easements, and on property owned by the water system. Construction activity will consist of boring, trenching, digging, and movement of machinery over the surface. The design standards used in this project are based on the 2013 Minimum Design Standards for Missouri Community Water Systems.

## ALTERNATIVES CONSIDERED:

- No Action (**Not Selected**): This alternative would require the authority to continue to operate and maintain the existing system to provide water service to its customers. This alternative would not address the system increased demand or reliability.
- Action Alternative No. 1 (**Selected**): This action will add 3 alluvial wells to the wellfield site and site piping to connect to existing raw water lines. This action alternative would also include the construction of a new ground storage tank at the Colbern Road Pump Station.

## REASONS FOR SELECTION OF PROPOSED ALTERNATIVES

Selected Actions: Action Alternative No. 1 was selected over the other alternatives as it provides the most feasible and cost-effective solution to provide adequate water and provide redundancy within the system.

## ENVIRONMENTAL IMPACT SUMMARY:

1. Primary Impacts

    a. Construction: Blowing dust, temporary surface disruption, and noise from construction equipment will occur during construction, but these impacts are expected to be minor and temporary in nature.
    b. Environmental: Environmental impacts of the project are expected to be temporary in nature. The proposed improvements will allow the water system to operate more efficiently and provide safe and reliable drinking water to the city's customers for the next 20 years.
    c. Financial: The current customer charge for drinking water is $2.322 per 1,000 gallons. The proposed project is expected to change the debt service proportionally to the expected benefit of the project. The current coverage on the debt service is charged monthly to each customer as 10 percent. This is expected to increase to 15 percent.

2. Secondary:

    a. Population Impacts: This project is designed to serve the existing water system. No relocation of people or structures is anticipated.
    b. Land Use and Trends: This project is located within the current well field of the Tri-County Water Authority in Jackson county. No significant change in land use trends is expected to result from this project.
    c. Environmental: No significant secondary environmental impacts are expected as a result of this project.

3. Mitigation Measures Necessary to Eliminate Adverse Environmental Effects: Noise, dust, and erosion normally associated with construction will be minimized by good engineering and construction practices. Restoration of disturbed areas along the water mains will be undertaken after construction is complete. Any debris such as demolition and construction waste, trees, or brush, will be disposed of properly.

    A cultural resource survey was conducted for the project. The survey was conducted by Environmental Research Center, LLC in July of 2024. It was concluded the project will likely not adversely affect any sacred properties and/or properties of cultural significance.

4. Irreversible and Irretrievable Commitment of Resources: Fuel, chemicals, and construction materials will be irretrievably committed to the project. Future funds will be committed to the operation and maintenance of the water system.

5. Positive Environmental Effects to be Realized from the Proposed Project: The proposed improvements to the system will help provide better water quality, improve operations, increase redundancy, extend the system's life cycle, and provide more reliability throughout the system.

6. Reasons for Concluding there will be No Significant Impact: The proposed project will have a positive impact on water quality and reliability. Population densities and land use trends will not be significantly affected. Where minor impacts occur, appropriate mitigation measures are planned.

## PUBLIC PARTICIPATION:

1. Public Involvement: The authority conducted a public meeting to discuss the proposed project improvements, the engineering alternatives, and environmental impacts of the project on September 11, 2024, Grain Valley City Hall, 711 Main Street, Grain Valley, MO 64029. Notice of the meeting appeared August 9, 2024, in the Independence Examiner .

2. Public Opposition or Opinions: No adverse comments on the proposed project were received.

## COORDINATION AND DOCUMENTATION WITH OTHER AGENCIES AND SPECIAL INTEREST GROUPS:

1. Facility Plan:
    - Tri County Water Authority System Resiliency Improvements Facility Plan dated February 9, 2022, prepared by HDR, Inc.
    - Environmental Information Document dated June 2024, prepared by HDR, Inc.

2. Federal: ___X___ U.S.F.W.S. ___X___ Corps of Engineers

3. State:

    Environmental Notices
    a. Missouri Department of Natural Resources – Division of State Parks
    b. Missouri Department of Natural Resources – Missouri Geological Survey
    c. Missouri Office of Administration – Federal Assistance Clearinghouse
    d. Missouri Department of Conservation

Historical and Cultural Notices

a. Missouri Department of Natural Resources – State Historic Preservation Office
b. Native American Tribes

4. Consulting Engineer: HDR, Inc.
10450 Holms Road, Suite 600
Kansas, MO 64131-3471

This action is taken on the basis of a careful review of the facility plan on file in the office of the Missouri Department of Natural Resources' Financial Assistance Center at 1101 Riverside Drive, Jefferson City, MO 65101. These are available for public review upon request Monday through Friday, 8:00 a.m. to 5:00 p.m. This agency will not take any administrative action on this project for at least 30 calendar days from the date of this document. Persons wishing to comment on the above environmental decision may submit comments to Lauren Graessle, P.E., of the Department of Natural Resources, Financial Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176, during this period. Thank you.

Sincerely,

FINANCIAL ASSISTANCE CENTER

Lauren Graessle
Lauren Graessle, P.E.
Director

Matthew Shallow
Matthew Shallow
Assistant Engineer

LG:msc

September 25, 2024
Date

Attachments

DISTRIBUTION

Department of Conservation
P.O. Box 180
Jefferson City, MO 65102

Conservation Federation of Missouri
728 West Main Street
Jefferson City, MO 65101

U.S. Environmental Protection Agency
**c/o Carter Tharp – WWPD/SRFB**
Tharp.carter@epamail.epa.gov

Missouri Department of Natural Resources
Missouri Geological Survey
Environmental Geology Section
P.O. Box 250
Rolla, MO 65402-0250

Missouri Department of Natural Resources
Division of State Parks
State Historic Preservation Office
P.O. Box 176
Jefferson City, MO 65102-0176

U.S. Fish and Wildlife Service
Ecological Services
101 Park DeVille Drive, Suite A
Columbia, MO 65203-0057

National Park Service
Midwest Region
mwro_compliance@nps.gov

USDA Rural Development
601 Business Loop 70 West
235 Parkade Center
Columbia, MO 65203

Gilmore and Bell, P.C.
**c/o Shannon Walsh Creighton**
One Metropolitan Square
211 North Broadway, Suite 2000
St. Louis, MO 63102-2741

Osage Nation Historic Preservation Office
627 Grandview
Pawhuska, OK 74056

SRF File DW291181-05

Tri-County Water Authority
**c/o John Overstreet**
General Manager
28405 East Blue Valley Road
Independence, MO 64058

HDR, Inc.
**c/o Kyle Sims, P.E.**
10450 Holms Road, Suite 600
Kansas City, MO 64131-3471

Missouri Department of Natural Resources
**Kansas City Regional Office**
200 Unity Circle North, Suite 2A
Lee's Summit, MO 64086-6018

The Independence Examiner
300 North Osage Street
Independence, MO 64050

Environmental Protection Agency
Office of Federal Activities
Ariel Rios (2252A)
1200 Pennsylvania Avenue, N.W.
Washington, DC 20004

Council of Environmental Quality
722 Jackson Place, N.W.
Washington, DC 20503

U.S. Army Corps of Engineers
Kansas City District
Kansas City Regulatory Office
601 East 12th Street
Kansas City, MO 64106

Mid-America Regional Council
600 Broadway, Suite 200
Kansas City, MO 64105

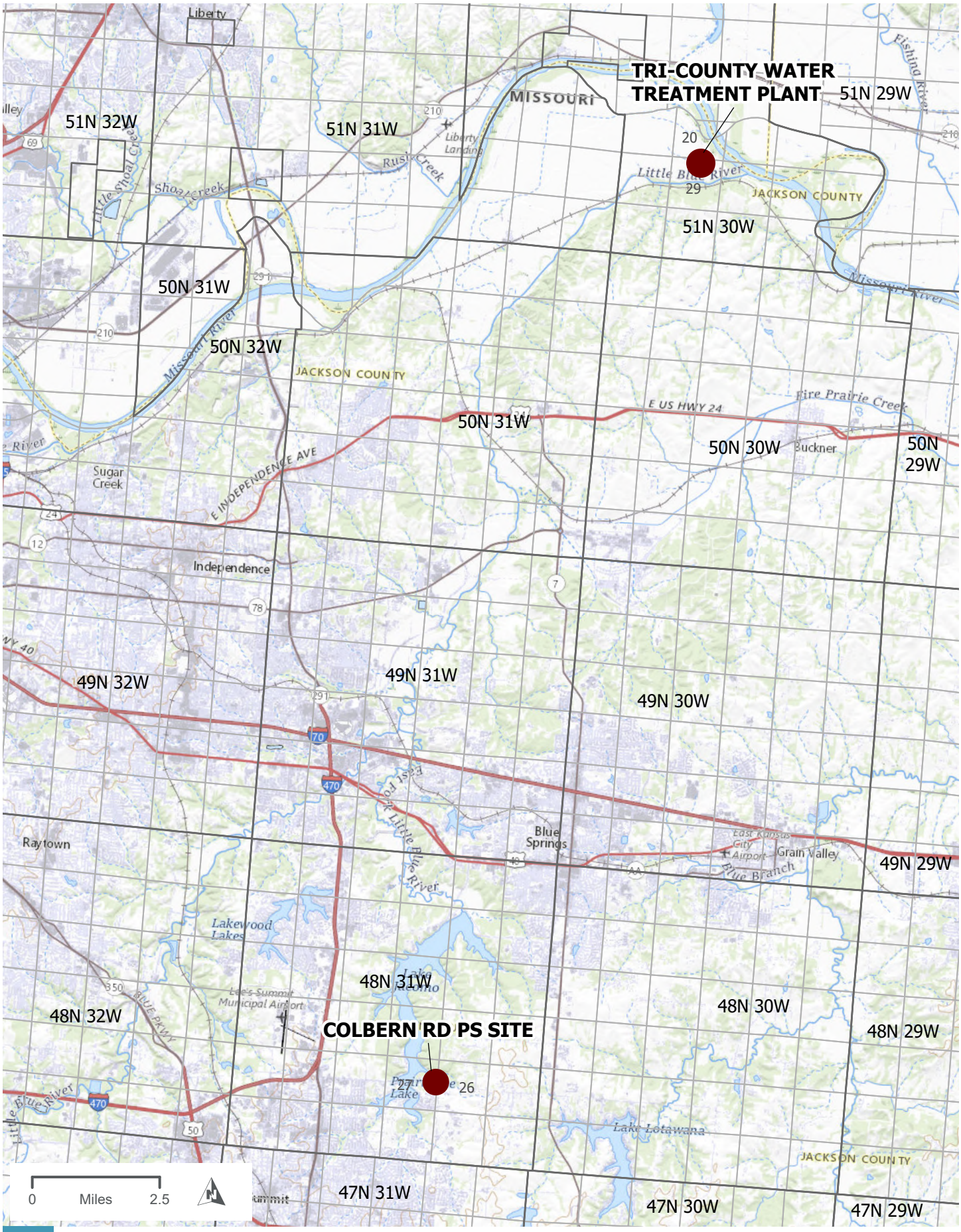
Lewis, Rice
**c/o David Brown**
600 Washington Avenue, Suite 2500
St. Louis, MO 63102

# Attached Maps

1. State Map/Project Location Map
2. Project Location Map

# State of Missouri

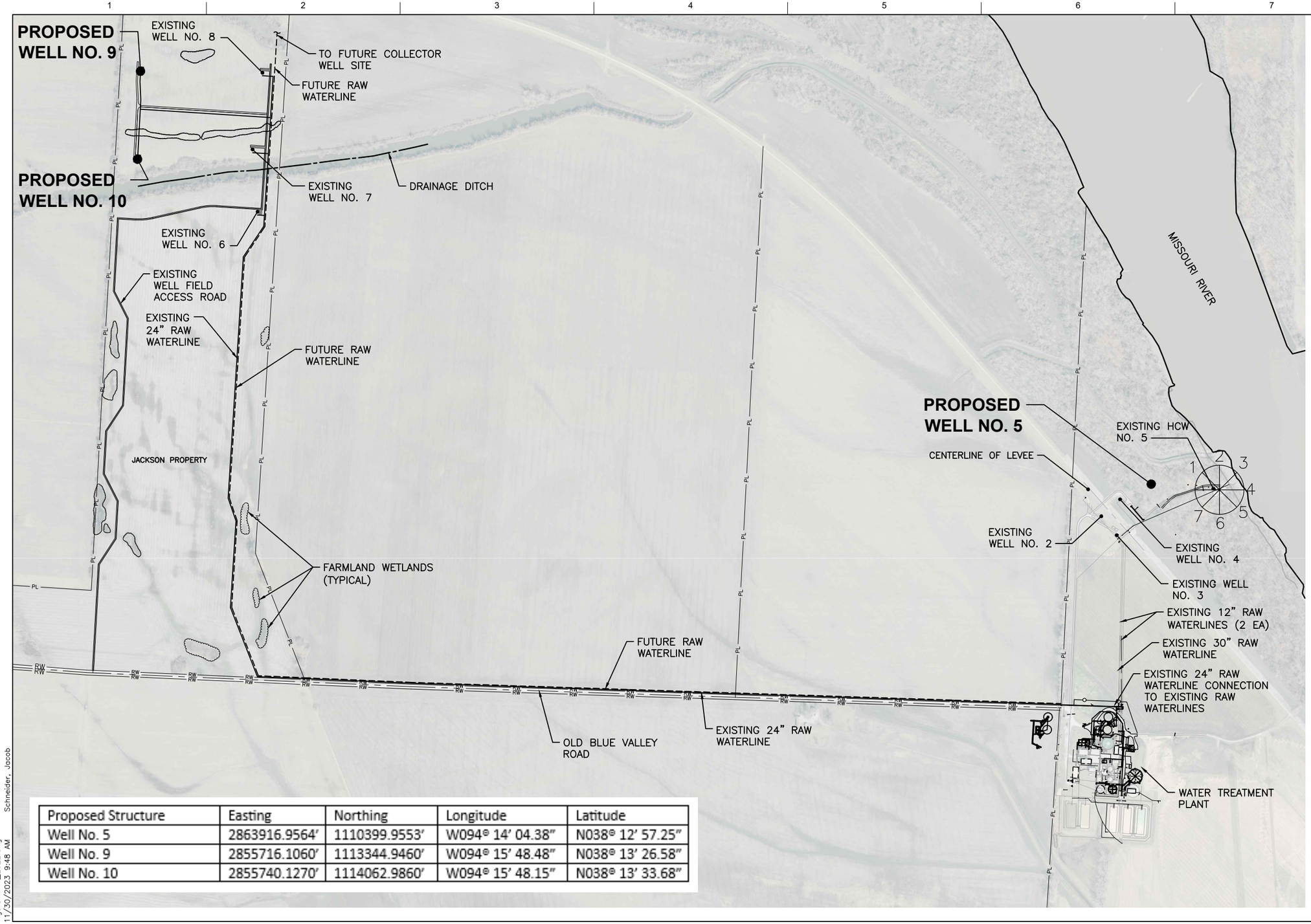
## Tri-County Water Authority



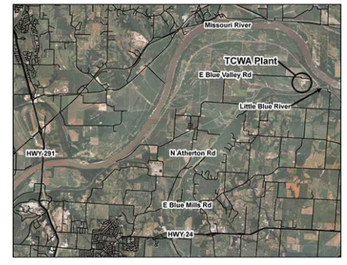

# TRI-COUNTY WATER AUTHORITY
# SYSTEM RESILIENCY IMPROVEMENTS
# FACILITY PLAN

**FIGURE 1**

PATH: C:\USERS\BGATZ\ONEDRIVE - HDR, INC\PROJECTS\MISC\TRI-COUNTY MAP\TRI-COUNTY MAP.APRX - USER: BGATZ - DATE: 12/1/2023




| Proposed Structure | Easting | Northing | Longitude | Latitude |
|---|---|---|---|---|
| Well No. 5 | 2863916.9564′ | 1110399.9553′ | W094° 14′ 04.38″ | N038° 12′ 57.25″ |
| Well No. 9 | 2855716.1060′ | 1113344.9460′ | W094° 15′ 48.48″ | N038° 13′ 26.58″ |
| Well No. 10 | 2855740.1270′ | 1114062.9860′ | W094° 15′ 48.15″ | N038° 13′ 33.68″ |




KEYPLAN
N.T.S

Schneider, Jacob
Figure 4-1_2022.dwg
11/30/2023 9:48 AM

HDR
MISSOURI CERTIFICATE OF AUTHORITY #: 000856

10450 HOLMES ROAD, SUITE 600
KANSAS CITY, MISSOURI 64131
816-360-2700

| ISSUE | DATE | DESCRIPTION |
|---|---|---|
| | | |

| | |
|---|---|
| PROJECT MANAGER | |
| CIVIL | |
| STRUCTURAL | |
| ARCHITECTURAL | |
| PROCESS | |
| MECHANICAL | |
| ELECTRICAL | |
| INSTRUMENTATION | |
| PROJECT NUMBER | |

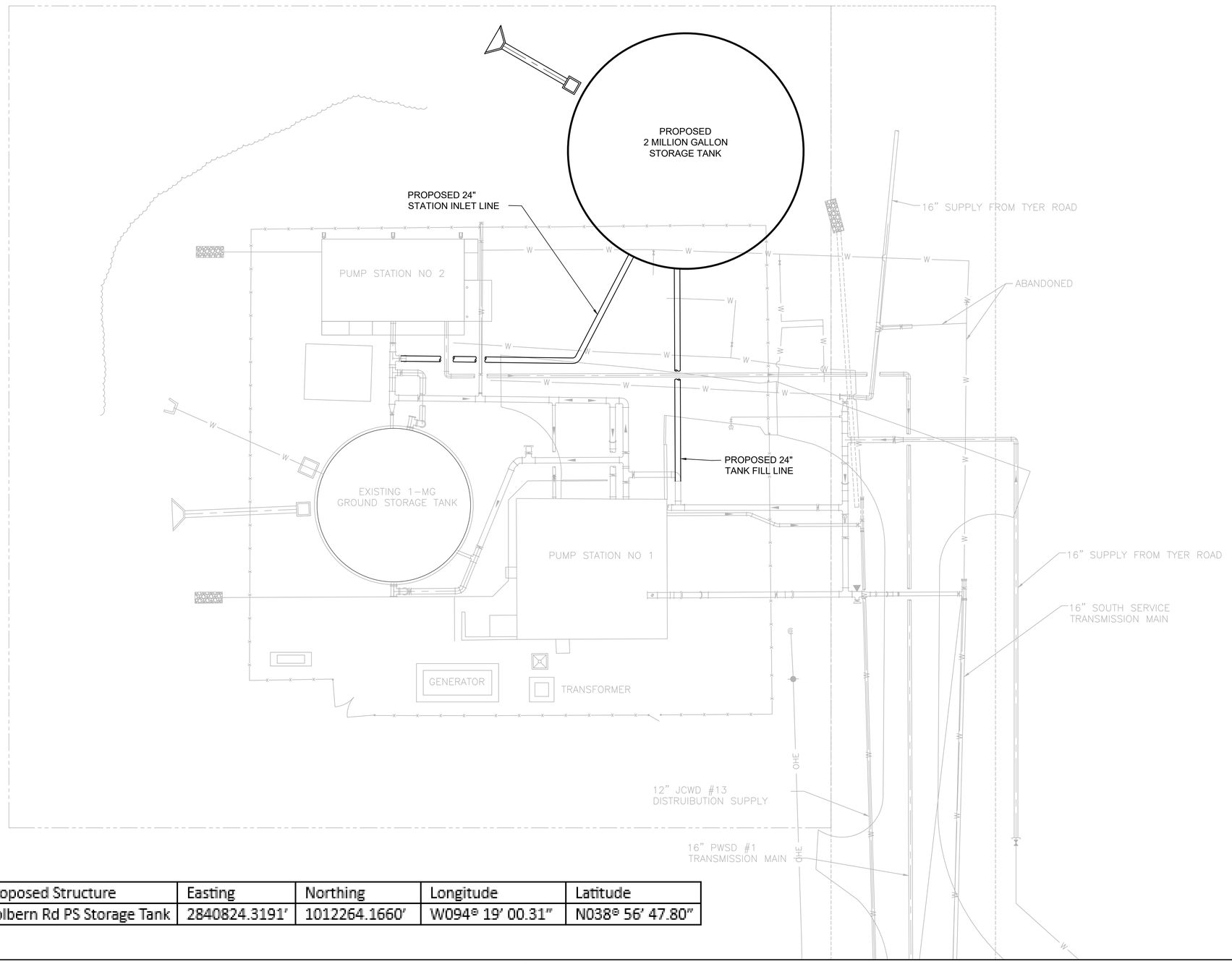
**TRI-COUNTY WATER AUTHORITY**
**SYSTEM RESILIENCY IMPROVEMENTS**
**FACILITY PLAN**

**WELLFIELD IMPROVEMENTS**

0 1" 2"

FILENAME Figure 4-1_2022
SCALE 1"=400'

SHEET
**FIG 4-1**




| Proposed Structure | Easting | Northing | Longitude | Latitude |
|---|---|---|---|---|
| Colbern Rd PS Storage Tank | 2840824.3191' | 1012264.1660' | W094° 19' 00.31" | N038° 56' 47.80" |


KEYPLAN
N.T.S

22X34HBRDR-2022 Improvements.dwg
11/30/2023 9:43 AM Schneider, Jacob

HDR
MISSOURI CERTIFICATE OF
AUTHORITY #: 000856

10450 HOLMES ROAD, SUITE 600
KANSAS CITY, MISSOURI 64131
816-360-2700

| ISSUE | DATE | DESCRIPTION |
|---|---|---|
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| PROJECT MANAGER | |
| CIVIL | |
| STRUCTURAL | |
| ARCHITECTURAL | |
| PROCESS | |
| MECHANICAL | |
| ELECTRICAL | |
| INSTRUMENTATION | |
| PROJECT NUMBER | |

**TRI-COUNTY WATER AUTHORITY**
**SYSTEM RESILIENCY IMPROVEMENTS**
**FACILITY PLAN**

**COLBERN ROAD PUMP STATION**
**GROUND STORAGE TANK**

0 1" 2"

FILENAME 60C102A
SCALE 1"=20'

SHEET
**FIG 4-2**